

Circular Micro-D connectors

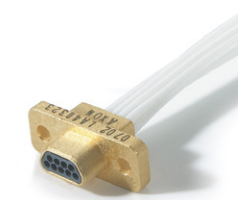
Number of ways: 5, 7, 12, 15, 19, 37 ways
 In-line male & female plugs
 Panel mount jam nut & square flange receptacles, rear or front mount for pigtail & PCB versions.



Expertise in space

MICRO-D

- > Pigtail, PCB connectors, solder cup assemblies
- > Approved to ESCC3401/029 EPPL2



NANO-D

- > Pigtail, EMI range, PCB connectors (BS, CBR, SMV)
- > Approved to ESCC3401/086 EPPL2



120-WAY MICRO-D

- > Plug or socket connector for cable or assembly
- > Plug board straight PCB connector
- > Socket surface mount PCB connector
- > Connector saver



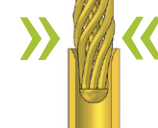
Twist Pin connectors

Twist pin contact:
 the heart of the AXON' Micro-D and Nano-D connectors
 The Twist Pin contact by its design and performance enables the system to meet the most severe requirements – often significantly more so than stipulated in the MIL-DTL-83513 and MIL-DTL-32139 standards.



BUMP AREA WILL BE COMPRESSED INSIDE THE SOCKET DURING INSERTION

INSERTION AND RETENTION PERFORMANCE OF THE TWIST-PIN AND SOCKET MATED PAIR

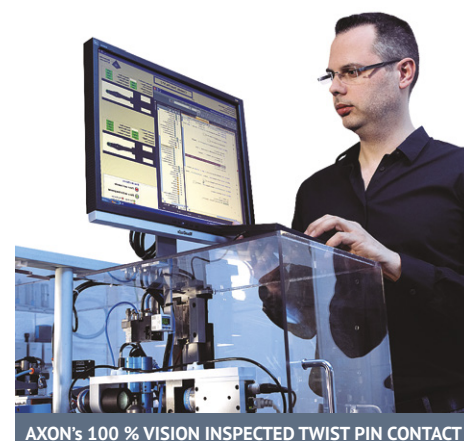


BOTH SOCKET CONTACT CHAMFER AND TWIST-PIN HEMISPHERICAL RADIUS CONTRIBUTE TO ENSURE ADEQUATE INSERTION EVEN IN CASE OF MISALIGNMENT

CHARACTERISTICS	AXON' TWIST PIN	MIL REQUIREMENT
NUMBER OF CONTACT POINTS WITH FEMALE CONTACT	7	No requirement
CONTACT RESISTANCE (FOLLOWING TEST §3.5.6)	Max 3 mΩ (under 3 A)	8 mΩ (under 2.5 A)
VIBRATION (NO DISCONTINUITY > 1 μs)	200 g*	20 g*
SHOCK (NO DISCONTINUITY > 1 μs)	500 g*	50 g*
CRIMPING	22 to 36 AWG	24 to 26 AWG

(* VIBRATION & SHOCK VALUES DEPENDING ON TEST PROFILES (FOR MICRO-D))

AXON' carry out 100% automatic vision inspection of the shape and dimensions of every twist-pin produced.



AXON'S 100% VISION INSPECTED TWIST PIN CONTACT

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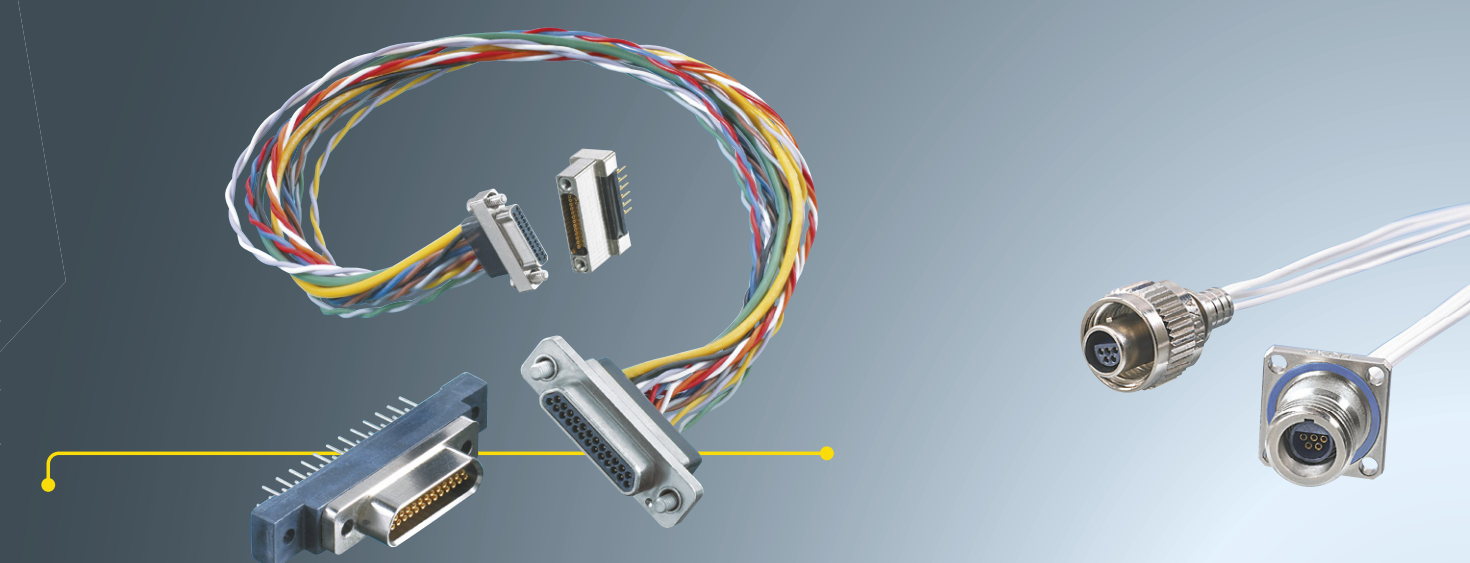
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Miniature high performance twist pin connectors

Micro-D & Nano-D, Rectangular & Circular



www.axon-cable.com



RECTANGULAR & CIRCULAR

As a specialist in advanced interconnect solutions, Axon' Cable has extensive experience in micro-miniature solutions based on the highly reliable **Twist Pin contact** technology. By its very design, the **Micro-D** connector system meets all the requirements of robustness, durability, low contact resistance, high current, dielectric strength, shock and vibration. With 1.27 mm (0.050") contact spacing, Micro-D connectors, half the size of D-sub connectors, represent an excellent solution for saving both space and weight. In addition to a complete range of QPL qualified Micro-D connectors to MIL-DTL-83513, Axon' also offers Micro-D PCB connectors and cable assemblies in both metal and plastic bodied versions. In addition to circular and rectangular Micro-D connectors and assemblies, Axon' Cable offers Nano-D connectors and jumpers compliant to the MIL-DTL-32139 specification.

Rectangular Micro-D connectors

- 0.050" (1.27 mm) contact spacing
- Operating temperature: 150°C or 200°C
- Metal shell: 9 to 100 contacts
- Low profile metal shell: 9 to 51 contacts
- Plastic shell: 9 to 51 contacts

PIGTAIL	SOLDER CUP	SAVER
<ul style="list-style-type: none"> > Metal shell > Low profile metal shell and plastic shell 	<ul style="list-style-type: none"> > Metal shell > Low profile metal shell and plastic shell 	<ul style="list-style-type: none"> > One-piece design or back to back assembly > Metal or plastic shell > Low profile metal shell

PCB		
<ul style="list-style-type: none"> > 0.100" pitch > Right Angle Mount (BR) > Metal shell 	<ul style="list-style-type: none"> > 0.100" pitch > Condensed Right Angle Mount (CBR) > Metal and plastic shell 	<ul style="list-style-type: none"> > 0.075" pitch > Condensed Right Angle Mount (CBR) > Metal shell
<ul style="list-style-type: none"> > 0.100" pitch > Condensed Right Angle Mount low profile (CBP) > Low profile metal shell and plastic shell 	<ul style="list-style-type: none"> > 0.100" pitch > Vertical Mount (BS) > Metal and plastic shell 	<ul style="list-style-type: none"> > 0.075" pitch > Vertical Mount (BS) > Metal and plastic shell

ACCESSORIES
<ul style="list-style-type: none"> > Backshells: Micro-D EMI backshell > Axoclamp® EMI band termination > Hardware > Removable jackscrews & jackposts > Rear panel mount jackposts for pigtail connectors > Removable jackposts for PCB connectors > Rear panel mount jackposts for PCB connectors > Non-removable hardware > Float mount inserts > U-clip mounting jackscrews > Micro-D & Nano-D assembly kit

MICROSTRIP	COMBO	NON MAGNETIC	HERMETIC	120 WAY MICRO-D
<ul style="list-style-type: none"> > 0.050" pitch pigtail & solder cup assemblies > 0.050" pitch PCB connector > Single row plastic connector : 2 to 40 contacts 	<ul style="list-style-type: none"> > Metal shell > PCB and pigtail versions > Designed to route power and signals including RF 	<ul style="list-style-type: none"> > For strong magnetic field environment > Minimal magnetic disturbance > Metal and plastic shell > PCB connectors : 0.100" pitch Condensed Right Angle Mount (CBR), 0.100" Condensed Right Angle Mount low profile (CBP), 0.075" pitch Vertical Mount (BS), 0.075" pitch Condensed Right Angle Mount (CBR) 	<ul style="list-style-type: none"> > For applications where an enclosure needs to be isolated from the outside environment. Panel feed-through is the main application for this type of application > Operating temperatures: up to +125°C for gasket versions > Metal shell > 2 versions: hermetic encapsulant with silicone or FKM gasket. Glass-to-metal seal version on request 	<ul style="list-style-type: none"> > For any applications where severe environmental conditions and high density cabling are critical. > Plug or socket connector for cable or assembly > Plug board straight PCB connector > Socket Surface Mount PCB connector > Connector saver

Nano-D connectors			MIL connectors	
<ul style="list-style-type: none"> - 0.025" (0.635 mm) contact spacing - Operating temperature: 150°C or 200°C - Metal shell: 09, 15, 21, 25, 31, 37, 51 contacts - Single and dual row 				
			<ul style="list-style-type: none"> > M83513/01 & /02 & /06 & /07 Solder cup connector- Metal shell- Plastic shell > M83513/03 & /04 & /08 & /09 Pigtail connector - Metal shell- Plastic shell > M83513/05 Hardware > M83513/10 to /21 PCB connector- Right angle 0.100" pitch - Metal shell > M83513/22 to 33 PCB connector- straight- 0.075" or 0.100" pitch- Metal shell 	<ul style="list-style-type: none"> > 0.025" (0.635 mm) contact spacing > M32139/03 & /04 Pigtail connector Metal shell: 09, 15, 21, 25, 31, 37, 51 contacts > Dual row
<ul style="list-style-type: none"> > For micro-miniature operating systems 	<ul style="list-style-type: none"> > 0.050" pitch receptacles & plugs- Board Straight type (BS) & Condensed Board Right angle (CBR) > 0.025" pitch receptacles & plugs- Surface Mount Vertical (SMV) & Surface Mount Horizontal (SMH) 	<ul style="list-style-type: none"> > Nano-D contacts spacing inside a standard Micro-D shell size. > Compatible with all the hardware types available for Micro-D pigtails and BS and CBR (0.050" pitch). 28, 52, 86 contacts 		

Custom Micro-D & Nano-D connectors

Connectors presented hereafter are just a few examples of what Axon' is able to design

FILTERED MICRO-D	EMI SOLUTIONS	HIGH DATA RATE	HARNESSING CAPABILITIES	PCB SURFACE MOUNT
<ul style="list-style-type: none"> > Protect the electronic equipment from electromagnetic interference > Available in pigtail and PCB versions > Electrical lines can be partially filtered (selective filtering) 	<ul style="list-style-type: none"> > Long experience in the fields of RF and EMI protection > EMI customization of Micro-D connectors which include EMI gaskets or o-rings, special backshells, special connector shells designs, optimized shield termination to the backshell 	<ul style="list-style-type: none"> > Rugged cable assemblies terminated with Micro-D connectors integrating high data rate standards including Ethernet, IEEE1394, SpaceWire, etc . They are able to resist high levels of shocks & vibration 	<ul style="list-style-type: none"> > Expertise in assembling complex multi-branched harnesses with Micro-D connectors or any type of connectors available. 	<ul style="list-style-type: none"> > Designed to save space between Printed Circuit Boards, surface mount connectors are available in 3 versions: - SMV (Surface Mount Vertical) - SMT (Surface Mount Transversal on the edge of the card) - SMH (Surface Mount Horizontal)
MINI SYSTEMS	CIRCULAR COMBO	NANO CIRCULAR	CUSTOM DESIGNED SHELLS & HARDWARE	
<ul style="list-style-type: none"> > Expertise in integrating mechanical parts and electronic components in one system to perform specific functions 	<ul style="list-style-type: none"> > Designed to route power and signals including RF 	<ul style="list-style-type: none"> > 0.025" (0.635mm) contact spacing 	<ul style="list-style-type: none"> > Micro-D with special integrated backshell for flat cable 	<ul style="list-style-type: none"> > Custom Micro-D design 51 way saver with custom retractable screws.
<p>FAST-LATCHING CONNECTOR SYSTEM</p>				
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